

**CLAIMS**

1.-17. (Canceled)

18. (Previously Presented) A multi-partition computer system, comprising:  
a plurality of cell boards, with each cell board including at least one main processor;  
and  
a service processor that is connected to each of the cell boards;  
wherein each partition includes at least one cell board, each partition is prevented from accessing memory of a different partition, the service processor can command the operations of the partitions, and the service processor can reset a partition.

19. (Previously Presented) The computer system of claim 18, wherein:  
each partition is running an operating system that is independent of the other partitions.

20. (Previously Presented) The computer system of claim 18, wherein:  
the service processor communicates with the cell boards via at least one USB format bus.

21. (Previously Presented) The computer system of claim 18, wherein:  
each cell board may be replaced while the computer system is on-line.

22. (Previously Presented) The computer system of claim 18, wherein:  
the service processor manages configuration of the partitions.

23. (Previously Presented) A multi-partition computer system, comprising:  
a plurality of cell boards, with each cell board including at least one main processor;  
and  
a service processor that is connected to each of the cell boards;  
wherein each partition includes at least one cell board, and the service processor manages operations of the partitions, and each partition is prevented from accessing memory of a different partition, and  
the service processor monitors power requirements and determines whether a new component may be added to the system based upon the power required for the new component.

24. (Previously Presented) The computer system of claim 23, wherein:  
the service processor can command the operations of the cell boards.

25. (Previously Presented) A multi-partition computer system, comprising:  
a plurality of cell boards, with each cell board including at least one main processor;  
and  
a service processor that is connected to each of the cell boards;  
wherein each partition includes at least one cell board, the service processor manages operations of the partitions, each partition is prevented from accessing memory of a different partition, and the service processor monitors log events.

26. (Previously Presented) The computer system of claim 25, wherein:  
the service processor displays selected log events to a user.

27. (Previously Presented) A multi-partition computer system, comprising:  
a plurality of cell boards, with each cell board including at least one main processor;  
and  
a service processor that is connected to each of the cell boards;  
wherein each partition includes at least one cell board, the service processor manages operations of the partitions, each partition is prevented from accessing memory of a different partition, and the service processor monitors status of the cells.

28. (Previously Presented) The computer system of claim 27, wherein:  
the service processor facilitates JTAG scan testing of the computer system.
29. (Previously Presented) The computer system of claim 27, wherein:  
the service processor displays the status of the cells to a user.
30. (Previously Presented) The computer system of claim 27, wherein:  
the service processor monitors environmental condition of the cells.
31. (Previously Presented) A multi-partition computer system, comprising:  
a plurality of cell boards, with each cell board including at least one main processor;  
and  
a service processor that is connected to each of the cell boards;  
wherein each partition includes at least one cell board, the service processor manages  
operations of the partitions, each partition is prevented from accessing memory of a different  
partition, and the service processor updates firmware resident in the cells.
32. (Previously Presented) A method for operating a computer system having a  
plurality of partitions and a plurality of cell boards, with each cell board including at least one  
main processor, wherein each partition includes at least one cell board, the method  
comprising:  
providing a service processor that is connected to each of the cell boards;  
managing operations of the partitions via the service processor;  
preventing each partition from accessing memory of a different partition;  
commanding the operations of the partitions via the service processor; and  
resetting at least one partition via the service processor.
33. (Previously Presented) The method of claim 32, further comprising:  
running an operating system on each partition that is independent of the other  
partitions.
34. (Previously Presented) The method of claim 32, further comprising:  
using at least one USB format bus to provide communications between the service  
processor and the cell boards.

35. (Previously Presented) The method of claim 32, further comprising:  
replacing at least one cell board while the computer system is on-line.

36. (Previously Presented) The method of claim 32, further comprising:  
managing the configuration of the partitions via the service processor.

37. (Previously Presented) The method of claim 32, wherein:  
maintaining security for the computer system via the service processor;  
wherein the service processor limits access to authorized users.

38. (Previously Presented) A method for operating a computer system having a  
plurality of partitions and a plurality of cell boards, with each cell board including at least one  
main processor, wherein each partition includes at least one cell board, the method  
comprising:

providing a service processor that is connected to each of the cell boards;  
managing operations of the partitions via the service processor;  
preventing each partition from accessing memory of a different partition;  
monitoring the power requirements via the service processor; and  
determining, via the service processor, whether a new component may be added to the  
system based upon the power required for the new component.

39. (Previously Presented) The method of claim 38, further comprising:  
commanding the operations of the cell boards via the service processor.

40. (Previously Presented) A method for operating a computer system having a  
plurality of partitions and a plurality of cell boards, with each cell board including at least one  
main processor, wherein each partition includes at least one cell board, the method  
comprising:

providing a service processor that is connected to each of the cell boards;  
managing operations of the partitions via the service processor;  
preventing each partition from accessing memory of a different partition; and  
monitoring log events via the service processor.

41. (Previously Presented) The method of claim 40, further comprising:  
displaying selected log events to a user, via the service processor.

42. (Previously Presented) A method for operating a computer system having a plurality of partitions and a plurality of cell boards, with each cell board including at least one main processor, wherein each partition includes at least one cell board, the method comprising:

- providing a service processor that is connected to each of the cell boards;
- managing operations of the partitions via the service processor;
- preventing each partition from accessing memory of a different partition; and
- monitoring the status of the cells via the service processor.

43. (Previously Presented) The method of claims 42, further comprising:  
displaying the status of the cells to a user via the service processor.

44. (Previously Presented) The method of claim 42, further comprising:  
monitoring the environmental condition of the cells via the service processor.

45. (Previously Presented) A method for operating a computer system having a plurality of partitions and a plurality of cell boards, with each cell board including at least one main processor, wherein each partition includes at least one cell board, the method comprising:

- providing a service processor that is connected to each of the cell boards;
- managing operations of the partitions via the service processor;
- preventing each partition from accessing memory of a different partition; and
- updating firmware resident in the cells via the service processor.